PUBLIC ACCEPTANCE STUDY OF THE SEARSBURG WIND POWER PROJECT: YEAR ONE POST-CONSTRUCTION, December 1997

EXECUTIVE SUMMARY

The public acceptance study of the Searsburg Wind Power Project is somewhat unique because it is designed to compare public attitudes before and after the project's construction. This executive summary presents the most important results from the 1996 pre-construction and 1997 one year post-construction surveys.

Knowledge of the Searsburg Wind Power Project

Since all 345 respondents participated in the pre-construction survey, they were all aware of the Searsburg Wind Power Project. During the year and a half construction period they learned about the project from multiple sources. Nearly 90 percent had read *Wind Power News*, and a fifth had attended Wind Energy day on August 16, 1997. Forty percent indicated they had been to the site to see how it works. The most common reaction was a sense of "awe" or express "amazement," while others find the rotating turbines "calming." For some the experience was "almost spiritual."

Attitudes towards Wind Power

The advantage or disadvantage of ten wind power characteristics were evaluate before and after the Searsburg Wind Power Project's construction. A comparison of these ratings is shown in Figure 1 with the operational phrase from each statement. Eight of these characteristics were seen as significantly more advantageous after the project's construction. The increased acceptance is particularly great relative to possible visual and sound impacts of turbines in the landscape. There was no significant change in two characteristics: wind power's relative cost, and the possibility of using land under the turbines. This pattern is essentially the same for Searsburg residents compared to residents of the other towns.

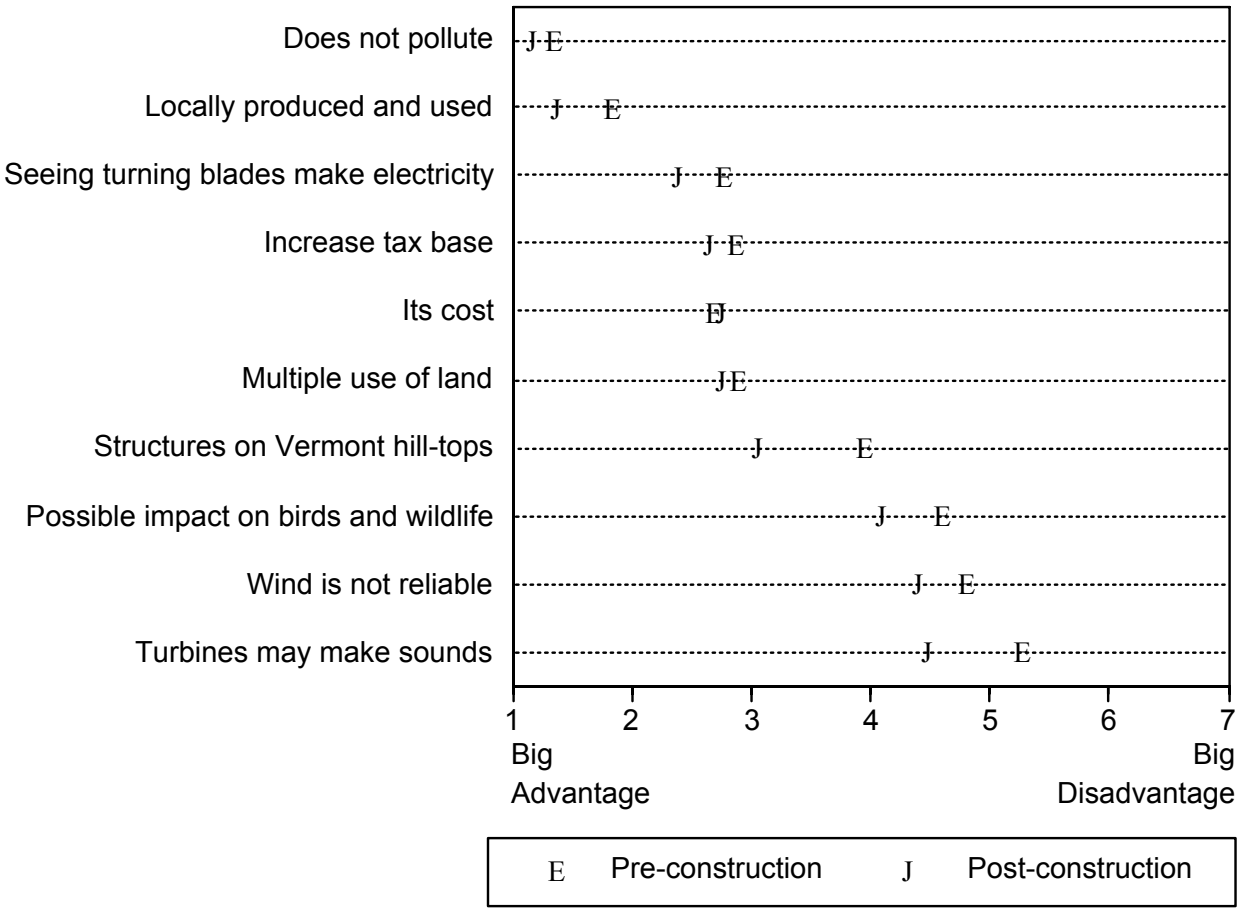

Figure 1. Comparison of ratings made pre- and post-construction of statements about wind power plants.

Support for the Searsburg Wind Power Project

Respondents were asked four questions in 1996 and 1997 to gage their support for the Searsburg Wind Power Project. The results plotted in Figure 2 show a substantial increase in support for the project. However, this positive shift is not as strong among Searsburg residents.

Clearly, a large portion of this positive shift is based on the respondents' assessment of the completed project rather than the expectations they had prior to construction. As one person wrote, "I think once the turbines were up that people's initial doubts or fears lessened. There is nothing like seeing them 'in the flesh.' Anyone I've talked to thinks they're great." People seem appreciative of Green Mountain Power's efforts to explain the project and what possible impacts it would have on them. "Keep the approach and process, it's good public relations," was one of the comments.

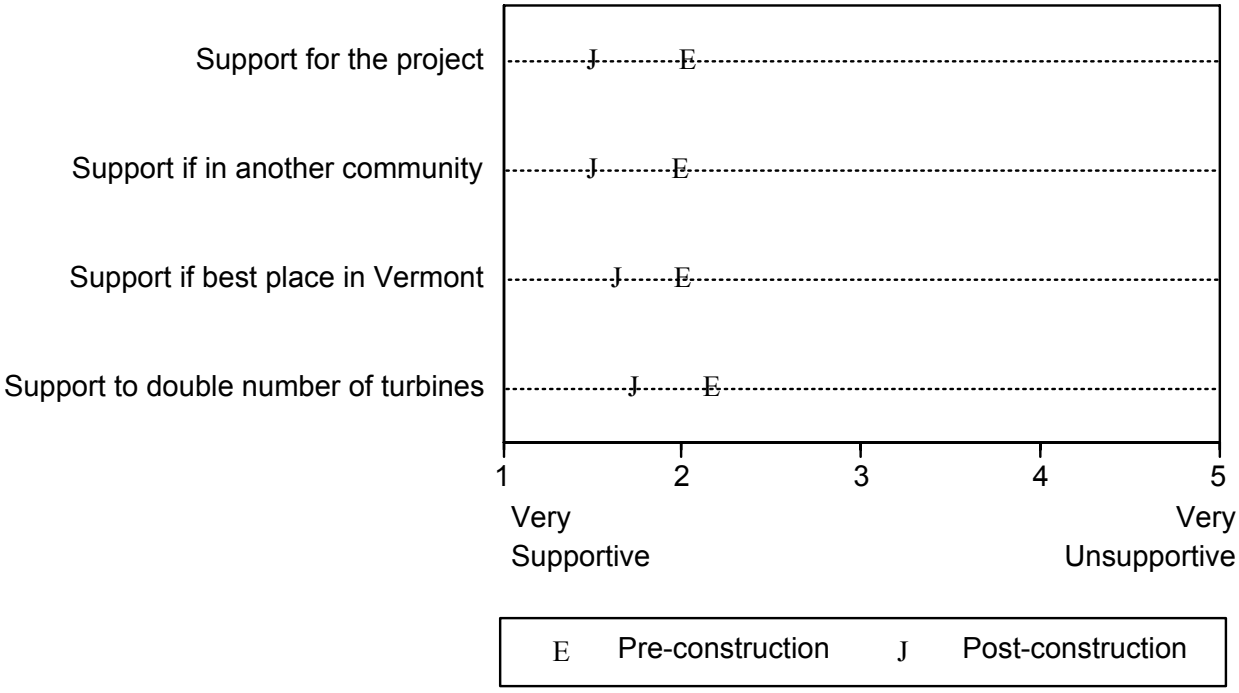

Figure 2. Comparison of ratings made pre- and post-construction of support for Searsburg Wind Power Project.

Visual Quality of the Searsburg Wind Power Project

As part of both surveys, respondents evaluated the scenic quality of 4.5-by-6.5 inch monochrome images of the Searsburg site seen from 1.25 and 4 miles away, before and after the turbines were constructed. The evaluation of the site without the turbines remained virtually unchanged over the intervening year and a half. While the turbines have a significant negative visual impact on the scene, it is significantly reduced in the second survey. This is yet another indication of increased acceptance of the project following its constructions. The evaluations by Searsburg residents is the same as those from residents in other towns.

There is very strong support for the truthfulness of these simulations. Nearly half of the respondents judged them to be very accurate, and less than 5 percent indicated they were inaccurate. Many indicated that simulating the movement of the turbine blades and adding color would be an improvement. As one respondent wrote, "I think these are a valuable tool in the initial presentation of the concept. They are essential to making a reasonable decision about the impact of the installation."

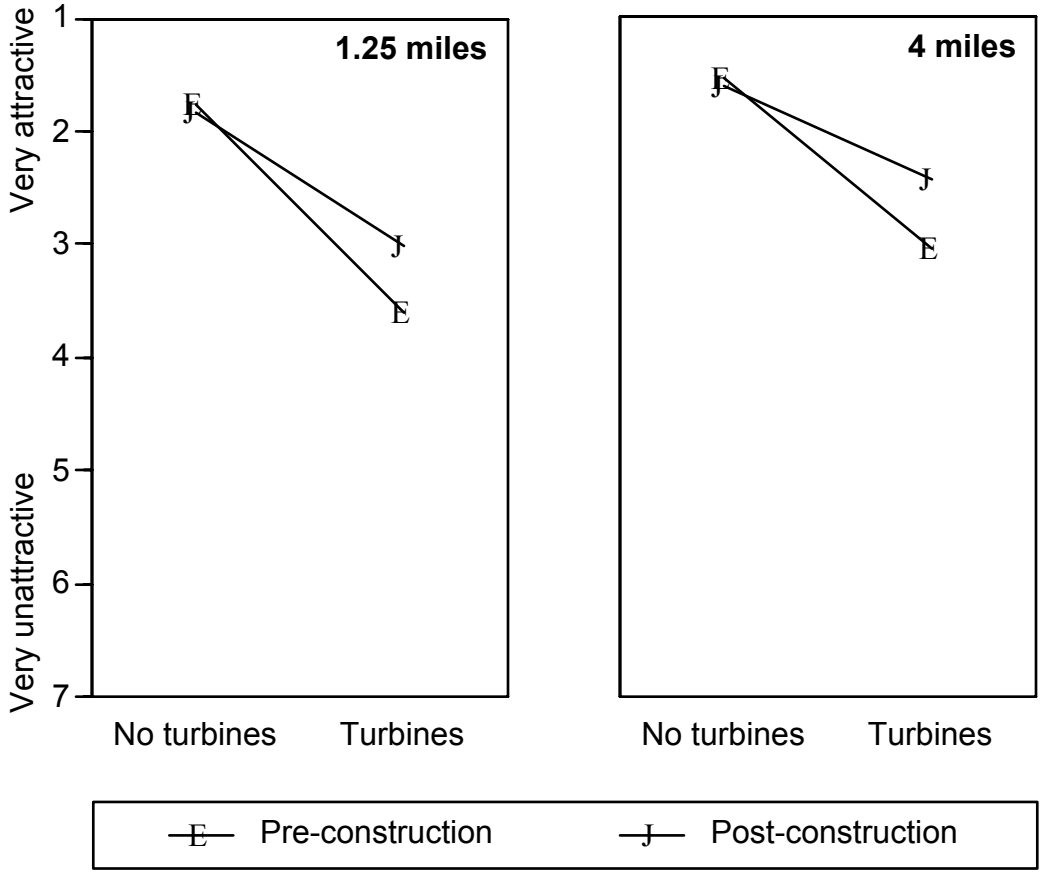

Figure 3. Comparison of ratings made pre- and post-construction of the Searsburg Wind Power Project with and without the wind turbines.

Construction-related Effects of the Searsburg Wind Power Project

The assessment of the construction-related effects by residents of Searsburg and the neighboring towns is shown in Figure 4. All effects were judged of insignificant severity. The assessment of effects to wildlife and erosion are virtually identical for the two groups. The local Searsburg residents judged the effects to be more significant than other respondents.

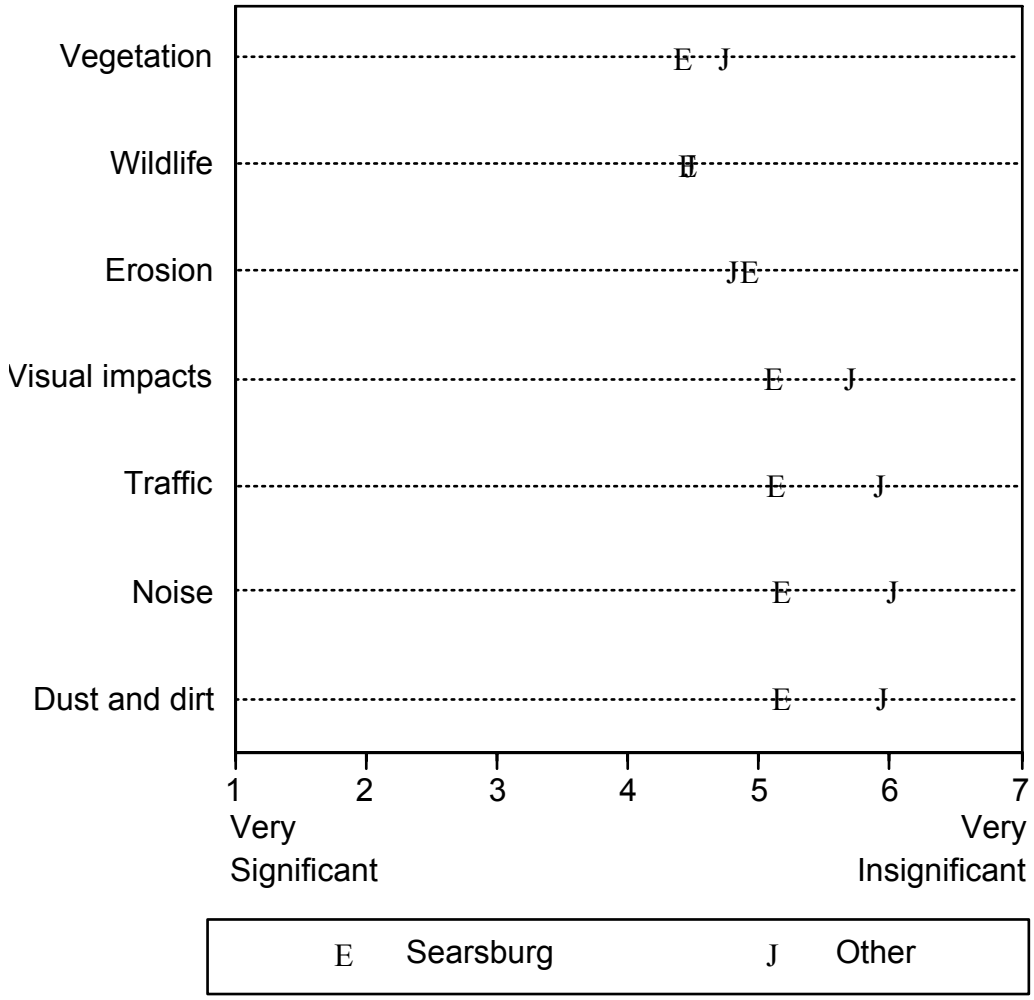

Figure 4. Comparison of ratings made by Searsburg and other respondents of the impacts related to construction of the Searsburg Wind Power Project.

Influence of Pre-construction Support for Wind Power

The Searsburg Wind Power Project is the largest wind power facility east of the Mississippi River. Vermont is a state noted for sensitivity to environmental issues and its landscape qualities. When this study began, the public's reaction was uncertain.

Support for wind power in general was mixed at the time of the pre-construction survey. Approximately 30 percent of the respondents were big supporters of wind power, 36 percent were moderate supporters, and 35 percent were not supporters. This section summarized how this initial level of support for wind power influenced changes in attitudes found in the post-construction survey.

Support for wind power grew in the year and a half between the two surveys. Over half of the respondents are big supporters after completion of the Searsburg project, 30 percent were moderate supporters and less than 20 percent are non-supporters. In general, people tended to retain their level of support or move up one level. Level of support fell for only a few respondents.

Support for Searsburg Wind Power Project. In the pre-construction survey, level of support for wind power appears to determine the level of support for the Searsburg Wind Power Project. This support increased in the post-construction survey so that initially big and moderate supporters of wind power have similar assessments of the Searsburg project. Their support remains significantly stronger than initial non-supporters of wind power.

Scenic value. Initial level of support for wind power has a large effect on the post-construction scenic evaluations. As initial level of support for wind power increases, higher scenic ratings are given to all scenes. However, the ratings of big and moderate supporters are somewhat similar, and they are both significantly higher than non-supporters.

Construction related effects. There is no apparent relationship between initial level of support for wind power and judgments about the significance of impacts experienced from the construction of the Searsburg project.